

REMARKS

Claims 1-8, 11-39, 42-70, 73-101, and 104-124 are pending in the application.

Claims 1-124 have been rejected.

Claims 1, 4, 6-8, 11-14, 16, 18, 20, 23, 24, 27, 28, 32, 35-38, 42-45, 47, 49-54, 56, 58, 59, 61, 63, 66, 68-70, 73-76, 78, 80, 82-84, 89, 90, 94, 97, 99-101, 104-107, 109, 111, 113, 114, 120, and 121 have been amended. Support for the amendments to the independent claims can be found, at least, on page 11 of the specification. No new matter has been added.

Claims 9, 10, 40, 41, 71, 72, 102, and 103 have been canceled.

Rejection of Claims under 35 U.S.C. §103

Claims 1-10, 15-41, 46-72, 77-103, and 108-124 stand rejected under 35 U.S.C. §103(a), as being unpatentable over Cohen et al, U.S. Patent No. 6,389,462 (hereinafter referred to as “Cohen”) in view of Smith et al, U.S. Patent No. 6,308,634 (hereinafter referred to as “Smith”).

In the rejection of the previous version of the claims, the Examiner relies upon Cohen to teach claim 1’s operations of “terminating,” “initiating,” “establishing,” and “transferring.” Office Action, pages 2-3. In the rejection, the Examiner equates Cohen’s proxy with the first network element, Cohen’s client with the second network element, and Cohen’s origin server with the third network element.

The Examiner notes that Cohen fails to determine the need for data transfer between the second and third network elements in the manner recited in claim 1. In particular, Cohen fails to determine the need for data transfer “by monitoring an amount of space available in at least one of a plurality of data buffers,” as recited in the prior version of claim 1. The Examiner relies upon col. 13, lines 29-57 of Smith to teach this feature of the claim.

The cited portion of Smith recites:

FIG. 16 is a flow chart summarizing a method 1600 for writing data to an allocated input or output buffer. Method 1600 will be described with

reference to writing data to an allocated input buffer, but is equally well suited to writing server data to an output buffer. In a first step 1602, a client process (e.g., client process 204(1)) uses input buffer identifier 1204(1) to retrieve the buffer status information (the start address 1304 and the length of valid data 1306) for the allocated buffer 1212. Then, in a second step 1604, client process 204(1) transfers a first block of the available client data into the allocated buffer 1212. Client process 204(1) calculates the storage address for the block of data by adding the length of valid data 1306 (data written value) to the start address 1302 of the buffer. Then, in a third step 1606, client process 204(1) updates the buffer status information by incrementing the length of valid data 1306 (data written value) by the size of the data block written to the allocated buffer 1212. Next, in a fourth step 1608, client process 204(1) determines whether the transferred block of data included an end-of-data indicator, and if so then method 1600 ends.

If, in fourth step 1608, client process 204(1) determines that the transferred data block did not include an end-of-file indicator, then in a fifth step 1610 client process 204(1) determines whether the allocated buffer is full by comparing the updated length of valid data 1306 to the known size of buffer 1212. If the data buffer 1212 is not full, then method 1600 returns to second step 1604 to transfer the next block of data. Smith, col. 13, lines 29-57.

The above-quoted section of Smith teaches how data can be written into a buffer.

The first steps, which write a block of data to the buffer, are described as being performed unconditionally. Then, two determinations are made: the client process determines whether the transferred data block includes an end-of-data / end-of-file indicator at 1608, and the client process determines whether the buffer is full at 1610.

Neither Smith nor Cohen, considered alone or in combination, teach the specific features of amended claim 1, which describes detecting that acknowledged data is being removed from a transmit buffer for a first TCP connection, where removal of the acknowledged data frees space in the transmit buffer and, in response to such detecting, transferring data from a receive buffer for a second TCP connection to the transmit buffer. Specifically, the cited art does not teach or suggest the act of detecting that acknowledged data is removed from a transmit buffer for a first TCP connection. Furthermore, the cited art neither teaches nor suggests moving data from a receive buffer for a second TCP connection in response to detecting the removal of acknowledged data from a transmit buffer for a first TCP connection.

Claim 1 and dependent claims 2-8 and 15-31 are patentable over the cited art for at least the foregoing reasons. Claims 32-39, 46-70, 77-101, and 108-124 are patentable over the cited art for similar reasons.

Claims 11, 13, 42, 44, 73, 75, 104, and 106 stand rejected under 35 U.S.C. §103(a), as being unpatentable over Cohen in view of Smith and in further view of Riddle, U.S. Patent No. 5,920,732 (Riddle). Claims 12, 14, 43, 45, 74, 76, 105, and 107 stand rejected under 35 U.S.C. §103(a), as being unpatentable over Cohen, in view of Smith and in further view of Radko, U.S. Patent No. 5,687,392 (Radko). These claims are patentable over the cited art for reasons similar to those presented above with respect to claim 1.

CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5087.

If any additional extensions of time under 37 C.F.R. § 1.136(a) are required in order for this submission to be considered timely, Applicants hereby petition for such extensions. Applicants also hereby authorize that any fees due for such extensions or any other fee associated with this submission, as specified in 37 C.F.R. § 1.16 or § 1.17, be charged to Deposit Account 502306.

Respectfully submitted,

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